

AMENDMENTS

Please amend the above-identified patent application as follows:

IN THE CLAIMS:

Please amend the Claims as follows:

1 - 6 (Withdrawn)

7. (Currently Amended) A bottom gate thin film transistor comprising:
an active layer including a polycrystalline silicon film where a drain, a source and a
channel are defined, grain sizes of the drain and source being greater than a grain size of the
channel; and

5 a gate formed from a refractory metal, said gate and active layer formed on an
insulating substrate,

wherein said gate has a higher thermal conductivity than remaining portions of said
insulating substrate and is operable to dissipate energy received at portions the
polycrystalline silicon film adjacent to said gate to produce said grain sizes.

8. (Currently Amended) A thin film transistor comprising:
an insulator substrate;
a refractory metal gate electrode located on the insulator substrate;
an insulator film provided on the insulator substrate and the gate electrode; and
5 a polycrystalline silicon film located on the insulator film, a channel defined in a first
portion of the polycrystalline silicon film over the gate electrode, a drain and a source

defined in second and third portions of the polycrystalline silicon film over the insulator substrate, grain sizes of the drain and source being greater than a grain size of the channel, wherein said refractory metal gate electrode has a higher thermal conductivity than said insulator substrate and is operable to dissipate energy received at portions of the polycrystalline silicon film adjacent to said gate to produce said grain sizes.

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9. (Previously Amended) The thin film transistor according to claim 8, wherein the grain size of the channel is at least about 500 Å to provide a desired on current of the thin film transistor.

10. (Original) The thin film transistor according to claim 9, wherein the grain size of the channel lies in a range of about 500 Å to about 20000 Å.

11. (Original) The thin film transistor according to claim 9, wherein the grain size of the channel lies in a range of about 1500 Å to about 20000 Å.

12. (Original) The thin film transistor according to claim 9, wherein the grain size of the channel lies in a range of about 3000 Å to about 10000 Å.

13-17 (Canceled)